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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,259

10/23/2003

Eyal Shavit

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PATENT DEPARTMENT
MACROVISION CORPORATION
2830 DE LA CRUZ BLVD.
SANTA CLARA, CA 95050

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT

PAPER NUMBER

2132

MAIL DATE

DELIVERY MODE

01/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/692,259

Applicant(s)

SHAVIT, EYAL

Examiner

Abdulhakim Nobahar

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 113-161 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 113-161 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: The specification on page 10, lines 14-15 recites "including units 301-304" which is different from the unit numbers shown on Fig.1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 154 and 161 are objected to because these claims contain the acronym "BOT" without providing the original words for this acronym. Applicant should provide the original words with acronym inside parentheses.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

Claim 112 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Since the word "substantially" does not define any definite value or measure for the change in the size of the adjunct to the content, thus the limitation "the size of the adjunct to the content is substantially unchanged through the successive modifications of the adjunct to the content" makes the claim 112 indefinite.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 113 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not provide any description for the limitation "complexity of individual of the successive modifications is approximately of a same level as others of the successive modifications of the adjunct to the content" recited in claim 113.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 112-161 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al (2003/0125964 A1) in view of Rhoads et al (7,113,615 B2).

Regarding claims 112, 124, 125, 136, 137, 143 and 157, Chang discloses:

A method for recording content distribution information in an adjunct to content (Para [0012]), comprising: performing a functional transformation on an adjunct to content each time an authorized copy of the content is generated in a succession of copies of the content so that the adjunct is modified to include copier related information for the generation of each such authorized copy (Para [0012], where registered users is an indication of producing successive authorized copies and storing user data in the embedded watermark corresponds to the recited copier related information; see also Para [0050] and Fig. 5, where a functional transformation is illustrated), wherein the functional transformation is characterized by an inverse transformation from which the copier related information for each such authorized copy is retrievable from the modified adjunct (Para [0054] and Fig. 7, step 710, where decrypting the encrypted watermark corresponds to the recited inverse transformation).

Chang, however, does not expressly disclose that the size of the adjunct to the content is (substantially) unchanged through the successive modifications of the adjunct to the content.

Rhoads discloses a system for processing watermark structures that comprises embedders, detectors and readers (see Fig. 1 and col. 2, line 66-col. 3, line 10). Rhoads further discloses the use of an exclusive OR (XOR) operation for embedding information into a content such that the net effect on the content (e.g., a host image) is zero which corresponds to the recited "the size of the adjunct to the content is (substantially) unchanged through the successive modifications" (see col. 18, lines 29-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement an embedding technique that does not affect the size of the host content as taught in Rhoads in the system of Chang. Rhoads on col. 33, lines 19-47 describes that the XOR operation is also used as a reverse operation on the received signals to retrieve embedded information by the reader component of the system. This implementation makes the system a more practical and a simple system.

Regarding claim 113, Chang in view of Rhoads discloses:

The method according to claim 112, wherein a complexity of individual of the successive modifications is approximately of a same level as others of the successive modifications of the adjunct to the content (see Chang, Fig. 6A, block 614, where the same operation of encryption is performed on the watermark each time for each user. Thus level of the

complexity is the same. See also Rhoads, col. 18, lines 29-40, where the same XOR function is applied on the watermark each time).

Regarding claim 114, Chang discloses:

The method according to claim 112, wherein the modified adjunct is provided with the copy of the content (see Fig. 5 through Fig. 7).

Regarding claim 115, 127, 128, 145, 146, 158 and 159, Rhoads discloses:

The method according to claim 112, wherein the functional transformation is an exclusive-OR function (see col. 18, lines 29-40).

Regarding claims 116, 129, 140, 147 and 140, Chang discloses:

The method according to claim 112, wherein the adjunct is a watermark embedded in the content (see [0030]).

Regarding claims 117, 130, 141 and 148, Chang in view of Rhoads discloses:

The method according to claim 112, wherein the adjunct is meta data associated with the content (see [0010] and [0012]. See also Rhoads, col. 53, lines 25-30).

Regarding claims 118, 131, 142 and 149, Rhoads discloses:

The method according to claim 112, wherein the adjunct is a signature related to the content (see col. 10, lines 63-66).

Regarding claim 119, Rhoads discloses:

The method according to claim 118, wherein the signature is a message digest or a hash value calculated using the content (see col. 8, lines 1-5 and lines 49-60, where the conversion function could be a message digest or a hash value based on the content which is well known practice in the art).

Regarding claims 120 and 132, Chang discloses:

The method according to claim 112, wherein the content is copyrightable material (see [0008]).

Regarding claims 121 and 133, Chang discloses:

The method according to claim 112, wherein the copier related information includes information of a user identification associated with a user of a copier used for generation of an authorized copy of the content (see [0012]).

Regarding claims 122, 134 and 153, Chang discloses:

The method according to claim 112, wherein the copier related information includes information of an IP address associated with a copier used for generation of an authorized copy of the content (see [0036]).

Regarding claims 123, 135, 144, 152 and 160, Chang discloses:

The method according to claim 112, wherein the copier related information includes information of a copy device used for generation of an authorized copy of the content by a copier (see [0036]).

Regarding claim 126, Chang discloses:

The method according to claim 125, wherein the functional transformation was used to modify the adjunct with copier related information upon each successive generation of an authorized copy of the content originating from the original copy of the content (see [001]-[0014]).

Regarding claims 138, 150 and 151, Chang in view of Rhoads discloses:

The method according to claim 137, wherein the adjunct is further modified to include information indicating an approximate time when the functional transformation is being performed (see [0013] and [0030]. See also Rhoads, col. 31, lines 37-37 and col. 47, lines 31-37).

Regarding claim 139, Chang discloses:

The method according to claim 137, wherein each network node relaying the packet of data through a network to a final destination performs the functional transformation on the adjunct to content in the packet of data so that the adjunct is modified to include identifying information of all such network nodes by the time it reaches the final destination (see Fig. 1, [0009] and [0029]).

Regarding claims 154 and 161, Chang discloses:

The method according to claim 143, wherein the method is performed by a BOT on the network (see [0030], where the software provided by the owner of the content corresponds to the recited BOT).

Regarding claim 155 and 156, Chang discloses:

The method according to claim 154, wherein the method is performed by the BOT on each packet of data encountered by the BOT while scouring the network so that the content distribution information determined thereby is useful for determining a network topology for the network and determining supernodes in the network (see [0012], where the transmitted packets associated with the digital product are used to track the distribution of the digital product. Each packet header contains the addresses of the origin and the destination network component which can be used to determine the network topology and information about the sending and receiving components; [0030], where the software provided by the owner of the content corresponds to the recited BOT).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,285,774 B1 to Schumann et al.

US Patent No. 5,287,407 A to Holmes.

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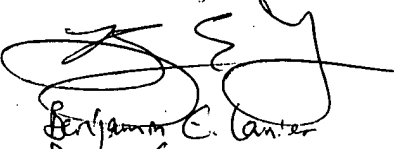
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Abdulhakim Nobahar
Examiner
Art Unit 2132 *A. N.*

January 6, 2008


Benjamin C. Carter
Primary Examiner
Au 2132